AMENDMENT TO THE DRAWINGS

A replacement sheet for FIG. 6 has been filed herewith.

REMARKS

This communication is in response to the Office Action mailed July 28, 2005. In the Office Action, claims 1-16 were pending.

The drawings were objected to as failing to comply with 37 CRF 1.84(p)(5) because reference number 360 for FIG. 6 was not included in the drawings. Applicant has provided a replacement sheet herewith that includes reference number 360. As a result, withdrawal of the objection of the drawings is respectfully requested.

Claims 1-5, 10-12 and 16 were rejected under 35 U.S.C. § 102(e) as being anticipated by Bruderlin et al. (U.S. Patent No. 2003/0179203). Bruderlin et al. describe a system and process for digital generation, placement, animation and display of feathers and other surface-attached geometry for computer generated imagery. Bruderlin et al. describe placing a plurality of particles on a surface and applying objects thereto, for example feathers.

Applicant has amended independent claims 1 and 10 to clarify the features recited therein. Amended claim 1 recites a computer implemented method for placing feathers on a surface. The method includes establishing a plurality of vertices on the surface and establishing a growing direction for each of the plurality of vertices. Feathers are placed on the surface based on the plurality of vertices and the growing direction. Furthermore, amended claim 1 includes receiving a shape of each feather and automatically detecting collisions between the adjacent feathers based on the shape of each feather. Furthermore, the respective growing directions of the feathers are automatically adjusted such that the respective shape of each feather does not collide with the shape of an adjacent feather.

Claim 10 recites a method for placing feathers on a surface including establishing a plurality of vertices on the surface. Each vertex has a growing direction. A recursive algorithm is performed to place a feather at each vertex. The algorithm includes finding a growing direction for vertices in the growing direction of the vertex and receiving a shape of the feather. If the shape of the feather and the vertex collide with the shape of an adjacent feather, the growing direction of the vertex is automatically adjusted until there is no collision of the shape of the feather and said shape of the adjacent feather.

Applicant's respectfully submit that independent claims 1 and 10, as amended, are neither taught nor suggested by Bruderlin et al. Subject matter previous recited by claims 4 and 11 has been incorporated into amended claims 1 and 10. On page 3, the Office Action refers to FIGS. 2 and 10 as well as paragraphs 72 and 137 of Bruderlin et al. to describe features recited in previous claim 4. Furthermore, on page 4, the Office Action refers to paragraphs 94 and 99 of Bruderlin et al. describe features recited in previous claim 11. It is submitted that these sections of Bruderlin et al. simply fail to teach or suggest the features recited in amended independent claims 1 and 10.

Paragraph 72 of Bruderlin et al. provides, "the combing tool also provides a simple curve/surface collision mode, in which key-curves that intersect the underlying surface patches are pushed back up." Although this section discusses a curve/surface collision mode, there is not teaching or suggestion that the collision is detected automatically nor that a growing direction for feathers are adjusted automatically. Furthermore, any collision that is detected is between a key-curve and a surface. At best, this collision involves a line and a surface and simply not detecting collisions between shapes of feathers. Without detecting collisions between feathers, a large amount of

manual input is necessary to provide a suitable graphic model that renders feathers on a surface.

Paragraph 137 describes, "interpenetration between the procedural surface-attached geometric objects and animated object model or hand animated geometric objects may be reduced or substantially limited..." Applicants simply fail to see how this section teaches or suggests automatically detecting collisions between adjacent feathers based on the shape of each feather and automatically adjusting the growing direction of the feathers such that the respective shape of the feathers does not collide with the shape of an adjacent feather. It is further submitted that paragraph 137 refers to animation of feathers during flight and simply does not refer to a growing direction on a surface and adjusting the growing direction such that feathers do not collide. Furthermore, paragraph 137 suggests that manual input may be necessary to correct inconsistencies in feather placement. While Bruderlin et al. describe a shape of a feather, there still is no teaching or suggestion of using that shape in collision detection.

In contrast to Bruderlin et al., the present invention can be utilized to use a shape of a feather to quickly and automatically determine collisions between adjacent feathers. By automatically detecting and adjusting for these collisions, a more user friendly manner in which to render feathers is realized. As such, manual input in preventing collisions between feathers is substantially limited.

The Office Action further reports that claims 6-9 and 13-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bruderlin et al. in view of Lapperierre (U.S. Patent No. 5,912,675). Furthermore, claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Bruderlin et al. in view of Greg Turk, "Re-tiling Polygonal Surfaces". These claims recite further patentable features when combined with their

respective independent claims. As a result, these claims are believed to be allowable.

In view of the foregoing, Applicants respectfully request reconsideration and allowance of the pending claims. Favorable action is solicited.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: _____

Todd R. Fronek, Reg. No. 48,516
Suite 1400 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

TRF:lms:rdr